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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/846,995	
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	First Named Inventor	Robert A. Wiedeman	
	Art Unit	2684	
	Examiner Name	Nick Corsaro	
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Karambelas & Associates		
Signature			
Printed name	Anthony W. Karambelas		
Date	November 3, 2005	Reg. No.	25,657

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PATENT
YR0-28

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appeal No. _____

In re Application of: ROBERT A. WIEDEMAN ET AL

Serial No.: 09/846,995

Filed: May 1, 2001

For: LOW PERFORMANCE WARNING SYSTEM AND METHOD FOR MOBILE
SATELLITE SERVICE USER TERMINALS

APPELLANTS' REPLY BRIEF

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: R. A. WIEDEMAN ET AL	:	Date: November 3, 2005
Serial No.: 09/846,995	:	
Filed: May 1, 2001	:	Group Art Unit: 2684
For: LOW PERFORMANCE WARNING SYSTEM	:	
AND METHOD FOR MOBILE SATELLITE	:	Examiner: Nick Corsaro
SERVICE USER TERMINALS	:	

APPELLANTS' REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief is in response to the Examiner's Answer of September 9, 2005. This brief is submitted in accordance with the provisions of 37 CFR §41.41.

ARGUMENT

Regarding Appellants' Arguments on page 4 of the Brief

Respondents/Appellants acknowledge that the Examiner has noted and agrees with Respondents restatement of the Examiner's rejection in paragraphs 1-4 and paragraphs 5 and 6 in order to premise the arguments which follow on page 4, paragraph 7 through page 5, paragraph 4 of the Brief.

Regarding the Appellants' arguments on page 4, paragraph 7 through page 5, paragraph 4 of the Brief a) Respondents maintain their position as stated in paragraph 7, page 4 and paragraphs 1 and 2, page 5 wherein Respondents describe the disclosure that supports the limitation of "a user terminal comprising a controller responsive to at least one criterion having been met for activating an indicator for informing a user of a potential for reduced user terminal performance."

Respondents respectfully submit that the Examiner has admitted on page 5 of his Answer that "Maveddat and Rydbeck do not specifically disclose a several coverage satellite system, where diversity transmission from the satellites such that the link margin is based on the diversity transmission."

Respondents respectfully submit that although Maveddat in its prior art gratuitously discusses GEO, MEO and LEO satellites, Maveddat is no where

concerned with MEO or LEO satellites and everywhere discloses and teaches a GEO mobile satellite system in its figures, its general description of the invention, and in its claims. Respondents, on the other hand, respectfully contend that as stated on page 6, lines 26 et seq. of the specification “In the preferred embodiment the satellite 40 is one of a constellation of non-geosynchronous orbit (non-GEO) satellites, preferably Low Earth Orbit (LEO) satellites, although one or more Medium Earth Orbit (MEO) satellites could be used as well, as could one or more geosynchronous orbit satellites in conjunction with LEO or MEO satellites.” This preferred embodiment and these combinations of alternative orbiting satellites are no where taught, suggested or implied in Maveddat nor could they be since Maveddat is exclusively concerned with GEO satellites and predictable outages as opposed to Respondents’ invention which relates to potential reduction in service in preferred embodiments employing non-GEO satellites in addition to MEO satellites, as well as geosynchronous satellites only in conjunction with LEO or MEO satellites.

Respondents respectfully submit that at page 4 of Respondents’ specification it is stated “Reference with regard to satellite-based communications systems can be had, by example, to U. S. Patent No. 5,526,404, ‘Worldwide Satellite Telephone System and a Network Coordinating Gateway for Allocating Satellite and Terrestrial Resources’, by Robert A. Wiedeman and Paul A. Monte; to U. S. Patent No. 5,303,286, ‘Wireless Telephone/Satellite Roaming System’, by Robert A. Wiedeman; to U. S. Patent No. 5,619,525, ‘Closed Loop Power Control for Low Earth Orbit Satellite Communications System’, by Robert A. Wiedeman and Michael J. Sites; and to U. S. Patent No. 5,896,558, ‘Interactive Fixed and Mobile Satellite Network’, by Robert A. Wiedeman, for teaching various embodiments of satellite communications systems, such as low earth orbit (LEO) satellite systems, that can benefit from these teachings. The disclosures of these various U. S. Patents are incorporated by reference herein in their entireties, in so far as they do not conflict with the teachings of this invention.” Respondents respectfully submit there is a teaching at page 6, lines 26 et seq., as previously recited, the teaching inter alia at page 7, lines 26 et seq. relating to loss of path diversity, the teaching at page 8, lines 20 et seq. relating to satellite path diversity, the disclosure at page 9, lines 4 et seq. relating to calculating the elevation angle, relating to path diversity and combination of LEO, MEO and GEO satellites as previously recited.

Respondents respectfully submit that no where in Maveddat is there suggested, taught or implied that LEOs, MEOs or LEOs and MEOs in conjunction with GEOs may be employed in the system of the instant invention which activates an indication for informing a user of potential reduced user terminal performance.

Furthermore, no where in Maveddat is there taught, suggested or implied that there is an indication of potential reduced user terminal performance as required in the instant claims since Maveddat is exclusively concerned with and directed to outages which are predictable. Respondents therefore respectfully submit that Maveddat employs predictable outages to reroute the path of a signal, while Respondents indicate a potential reduced user terminal performance to inter alia employ path diversity when employing a LEO system and other methodologies, the previously recited LEO, MEO and GEO combinations to facilitate continuity of communication. Respondents respectfully submit that Maveddat's system could in no way be employed to indicate a potential reduced user terminal performance in the satellite systems of Respondents as previously recited since Maveddat is exclusively concerned with outages which are predictable to reroute communications and not concerned with potential reduction of user terminal performance in order to perform inter alia path diversity as previously recited.

Respondents respectfully disagree with the Examiner that an "outage is a reduced performance situation because the terminals performance is reduced to not working at all" as stated in his Answer at page 9 since Respondents seek to eliminate the outages that Maveddat detects and readily accepts.

**Regarding Appellants' Arguments on page 5, paragraph 4, through
page 6 of the Brief**

A). Respondents maintain their position with respect to paragraph 4, page 5 through paragraph 4, page 6 of the Brief relating to the Rydbeck reference wherein there is described that Rydbeck does not teach "a controller responsive to at least one criteria having been met for activating an indicator for informing the user of a potential for reduced user terminal performance." Respondents respectfully submit that the Examiner's disagreement with Respondents, and consequently his reliance upon Maveddat to teach this limitation, is misplaced for the reasons recited above.

Furthermore, Respondents respectfully submit that in Rydbeck at the recitations relied upon by the Examiner at col. 1, lines 18-44 and col. 1, lines 60-67 it is merely indicated that "a primary objective of the present invention is to provide a mobile radio telephone which generates a signal to alert the user thereof when a message is received other than through a normal paging channel." Respondents respectfully submit that this does not teach, suggest, imply nor does it have any relevance to an indication for informing a user of potential reduced user terminal performance as required in the claims of the instant invention. Accordingly, Respondents respectfully disagree with the Examiner that "Rydbeck discusses how an

“indicator could be used in a mobile terminal to show such a reduced performance” as stated at the bottom of page 8 of the Examiner's Answer.

B). Respondents respectfully maintain their position as set out in paragraphs 5 and 6 on page 6 of the Brief that it would not be obvious to combine Maveddat and Rydbeck and that there is no suggestion to combine the two references.

Respondents respectfully submit that Maveddat is no where concerned with an indication for informing a user of potential reduced user terminal performance but is exclusively directed to outages as described above; whereas Rydbeck inter alia is not concerned with an indication for informing a user of potential reduced user terminal performance as well but directed to an alert to the user when a message is received other than through a normal paging channel and not at all concerned with the outages as disclosed by Maveddat. Furthermore, Respondents respectfully submit that Rydbeck has a primary objective providing a mobile radio telephone which generates a signal to alert the user thereof when a message is received other than through a normal paging channel, whereas Maveddat is primarily concerned with anticipating periodic or predictable disruptions of communications in a satellite communication network and then compensating for this disruption in an appropriate manner. Respondents respectfully conclude that aside from employment in the satellite systems of the Rydbeck and Maveddat inventions, there is no motivation for one of ordinary skill in the art to combine these teachings nor is there any teaching, suggestion or implication of Respondents' satellite system employing an indication for informing a user of potential reduced user terminal performance as recited in the instant claims. Accordingly, Respondents respectfully disagree with the Examiner that both references are analogous systems and, because a message and an indication are essentially the same, Rydbeck gives motivation to combine to one of ordinary skill in the art.

**Regarding Appellants' Arguments on page 6, paragraph 7 through
page 7, paragraph 5 of the Brief**

A). Respondents respectfully maintain their position as outlined in paragraph 7, page 6 through paragraph 5, page 7 regarding the improper combination of Maveddat and Rydbeck. Respondents respectfully disagree that Maveddat and Rydbeck are speaking of satellite portable phones and both are speaking of showing a reduced performance condition. Respondents respectfully submit that for reasons previously recited above which are hereby respectfully incorporated by reference, Maveddat is exclusively directed to outages and not an indicator for informing a user of a potential for reduced user terminal performance as in the instant claims, and

Rydbeck is no where directed to reduced performance condition as contended by the Examiner but to a message which is received through a paging channel at a margin level greater than the specified margin level as stated in the abstract of Rydbeck and elsewhere. The contention of the Examiner that Maveddat shows reduced performance with a message is to no avail since Maveddat has been shown to relate to outages whereas Rydbeck is directed to messages received through a paging channel at a margin level greater than the specified margin level. Accordingly, Respondents respectfully submit that aside from their use in satellite communications systems, they are non-analogous and one of ordinary skill in the art would not in any way be motivated to combine the teachings of same. Respondents respectfully submit, in any event, the combination of Maveddat and Rydbeck does not teach, suggest or imply the limitations of the invention of the instant claims.

**Regarding Appellants' Arguments in the last paragraph on page 7
through paragraph 4 on page 8 of the Brief**

A). Respondents respectfully maintain their position as recited on page 7 through paragraph 4, page 8 wherein Respondents state some of the Examiner's rejections and arguments from the Office Action and argue that the combination of Maveddat and Rydbeck do not teach the limitations of the claims and that it would not be obvious to modify Maveddat with Rydbeck.

Respondents have shown that Maveddat does not disclose a mobile terminal in a satellite system with gateway and satellites where the terminal and the gateways are in bidirectional communications and the user is notified via a message that they will have reduced performance via an outage. Respondents respectfully point out for reasons recited above that no where do Respondents in their specification or claims suggest or imply a reduced performance which goes to zero as contended by the Examiner or is in effect an outage. Rydbeck has been distinguished over for reasons recited above and does not teach an indicator that can do the same job and therefore Maveddat does not show every one of the argued limitations and may not be properly combined with Rydbeck to teach the indicator of the claims of the instant invention since Rydbeck's indicator merely discloses a paging channel at a margin level greater than the specified margin level as recited above. For these reasons and those recited above, Respondents respectfully submit that Maveddat in view of Rydbeck is an improper combination and does not show all the limitations of the instant claims.

Response to arguments concerning 103(a) rejection of being unpatentable over Maveddat 6,070,073 in view of Rydbeck 5,930,718 and further in view of Arrington 5,918,176 and Redden 5,490,087

Regarding Appellants' Arguments in the last two paragraphs of page 8 through paragraph 4 on page 10 of the Brief

A). Respondents respectfully maintain their position as recited in the last paragraph on page 8 through paragraph 4 on page 10 wherein it is stated that Arrington and Redden do little to cure the deficiencies of Maveddat and Rydbeck where Maveddat and Rydbeck lack coverage by several satellites or having diversity transmission and an outage report. Respondents respectfully submit that although they do not necessarily agree that link margin as employed by the Examiner's interpretation of the references, especially Arrington, is not equivalent to informing a user of a potential for reduced user terminal performance as required in the instant claims, nevertheless, Arrington describes a totally non-analogous satellite communication system employed by assignee Motorola, referred to as the Iridium system, which does not employ at least one gateway bidirectionally coupled to a data communications network nor a controller responsive to at least one criterion having been met for activating an indicator for informing a user of a potential for reduced user terminal performance, but is directed to a system relating to time stamping of power measurements employed in a satellite communications system totally devoid of gateways as employed in the instant claims and requiring satellite-to-satellite communication which necessarily excludes bent pipe repeaters which can be and are implicitly understood by those skilled in the art to be employed in the satellites of the orbital configurations as recited in the claims. Accordingly, Respondents respectfully contend that the Examiner's reliance on col. 5, lines 30-67, col. 6, lines 55-67 and col. 8, lines 1-15 of Arrington is misplaced and is of no avail.

Respondents respectfully submit, likewise, Redden is directed to an Iridium system as recited above which is not analogous and does not teach diversity transmission as implicitly and explicitly set out in the claims of the instant invention but rather teaches away by employing satellite-to-satellite communication wherein in a typical communication a user transmits directly either up to a satellite or unidirectionally up through a gateway to a satellite which then transmits to at least another satellite located proximate to the recipient party and then down to the recipient party. The recitations relied upon by the Examiner at col. 9, lines 35-55 and col. 15, lines 7-47 are directed to techniques in the art for allocation of the communication resource which include space diversity and polarization diversity in addition to partitioning the use of a hybrid combination of FDMA and TDMA and do not teach

diversity transmission, nor does col. 15, lines 7-47 which is primarily directed to inhibited classes which compare the list of inhibited classes with the other user class which has been assigned to the subscriber unit and determines if the subscriber contains one of the inhibited classes. If an inhibited set of classes is identified, other antenna beams from the satellite are available. If no other antenna beams are available, a message is displayed to the user to initiate communications at a later time which include messages as system busy or try again later. Respondents respectfully submit that although the Redden reference as construed by the Examiner may be considered to disclose an outage report, it nevertheless does not disclose a message for informing a user of a potential for reduced user terminal performance as described above and, furthermore, Redden does not disclose diversity transmission as implicitly and explicitly provided for in the system of the instant claims.

Accordingly, Respondents respectfully disagree that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Maveddat and Rydbeck and have several coverage satellite system where diversity transmission from the satellites such that the link margin is based on the diversity transmission and link outage report as taught by Arrington and Redden thus allowing the reporting be done for mobiles in fading environments as contended by the Examiner. Respondents respectfully submit that the only thing in common with regard to these four references is that they are employed in satellite systems and that the contention of the Examiner that Maveddat and Rydbeck show reduced link performance and that Arrington and Redden show ways to get better link performance, and furthermore that Arrington and Redden are curing deficiencies in the system taught by Maveddat and Rydbeck does not in any way teach the limitations of the instant claims or render them obvious.

Accordingly, Respondents respectfully submit that Maveddat in view of Rydbeck do not show the satellite system with indications of reduced performance and Arrington and Redden show how to cure such deficiencies.

Respondents respectfully request, in view of the above arguments, that the final rejection of the primary Examiner be reversed and that the claims of the instant invention be allowed to go to issue.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "AW Karambelas". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

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